CHAPTER 3

Command, Control, and Communications

Command and control is the process of directing and controlling the activities of military forces in order to attain an objective. It includes consideration of the physical means of its accomplishment: the communications, control centers, information gathering systems, and the staffs and facilities necessary to gather and analyze information, plan for what is to be done, and supervise the execution of what has been ordered.

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COMMAND AND CONTROL

COMMAND

The organization of the TAACOM includes the TAACOM commander, staff, and subordinate units attached or assigned to the command. A chain of command through which command actions are channeled extends downward from the TAACOM commander to the commanders of the subordinate units. The TAACOM commander and TAACOM staff function as a team.

Commander

The TAACOM commander concentrates on the essential aspects of accomplishing the TAACOM mission and delegates the supervision of less critical operations to the staff. The commander provides overall guidance to the staff and to subordinate unit commanders so they can exercise initiative and exploit rapid changes in situations which affect combat service support. The TAACOM commander exercises command over the assigned and attached subordinate units through their commanders.

Deputy Commander

The TAACOM deputy commander is next senior to the commander and assumes command in the commander's absence. Since the deputy commander is the commander's successor, that officer maintains direct official contact with the commander. The deputy acquires accurate and complete knowledge of TAACOM operations and assumes command, when necessary, without interruption of operations. The deputy is also the chief of staff of the TAACOM.

Staff

Based on DA and TA planning, policy, and guidance, the TAACOM headquarters staff develops and provides implementing plans, policies, priorities, and allocations to subordinate operating elements and coordinates their activities. This procedure requires the headquarters staff to develop plans and policies in close coordination with the TA headquarters and TA functional commands according to TA overall plans, policies, priorities, and allocations. In addition to TAACOM, other TA functional commands include the medical command, personnel command, transportation command, engineer command, and theater communications command (Army).

CONTROL

The control of the assigned and attached subordinate units of the TAACOM involves three major considerations: command responsibility, techniques of control, and facilities.

Command Responsibility

Commanders of the TAACOM subordinate units are responsible for the control of CSS operations provided by their units. This responsibility involves the adequacy and timeliness of CSS provided to the corps and to forces in the COMMZ.

Techniques of Control

Effective control of TAACOM subordinate units is largely dependent upon the various techniques of communications, supply management and distribution, maintenance management, data processing and analysis, electronic warfare, and decision making. Commanders must have accurate knowledge of the current techniques of controlling support operations to effectively control and establish valid support plans and requirements,

Facilities

Facilities include piplines, rail nets, highway nets, airfields, storage areas, ports and beaches, supply points, and computers. A control factor is the availability of adequate facilities at locations where they are required, so that TAACOM units can perform their assigned missions. Assigned missions of TAACOM units include receiving, storing, protecting, and distributing supplies and providing specific services in support of operations.

COMMAND RELATIONSHIPS

With Higher Headquarters

TA headquarters provides the TAACOM with policy direction, broad guidance on supply and maintenance planning, and general supervision of support operations. These support operations include RAP planning for assigned areas of responsibility in the COMMZ. The TA retains responsibility for selected controlled items of materiel to provide intensive management and to control their allocation. TA also tasks the TAACOM in the TAACOM's theater support role.

With Other TA Commands

The TAACOM coordinates with the MEDCOM, ENCOM, PERSCOM, TRANSCOM, and commands outside the US Army sector on plans and operations for GS supply, maintenance, field services, and other services. This coordination includes TAACOM engineer, communications, and transportation requirements. The TAACOM also has a host-tenant relationship with other TA functional commands in the COMMZ. In this role, the TAACOM coordinates with the commands to insure that the required combat service support is provided when requests are made.

With Lower Commands

The TAACOM commands, controls, and supervises all assigned and attached units that provide area DS and GS combat service support. It directly tasks those units which support the COMMZ and, acting on directions provided by TA, passes on theater support taskings.

With Other Commands and Activities

On some matters, the TAACOM operates directly with CONUS NICPs and NMPs on supply and maintenance requirements. This coordination does not apply to selected controlled items which are strictly managed and allocated by TA. When directed by TA, the TAACOM coordinates with the US Army corps, US forces deployed out of sector, allied forces, theater Air Force, and the Navy to meet their supply and maintenance support requirements. Through its procurement centers in foreign countries, the TAACOM cooperates both with US Department of State missions and, where established, with the theater-level joint procurement coordinating board. In coordination with the TA CMO officer or TA DCSLOG, the TAACOM may also conduct direct negotiations with government agencies or private individuals in the host countries and with allied forces for required services or supplies.

The TAACOM relationship with resident or transient combat units is the same as that with other units that may be located in the TAACOM area of responsibility. The combat unit is a customer to which the entire range of support is provided. Such a unit would normally be under the command of the theater army until it is released to the control of a corps or an allied command. The relationship would be somewhat different if the combat unit were used as a RAP force. In this case, the relationship would be as directed by

the TA commander. See chapter 8 for further information on this subject.

With the Host Nation

TA headquarters provides the TAACOM with national policy guidance and specific parameters within which negotiations can be conducted with host nation counterparts for host nation support. The TA headquarters also provides the TAACOM with guidance concerning the implementation of agreements between the United States and the host nation that have been approved at the national level. Once an agreement has been approved at the national level and implementation instructions have been received, plans for implementation must be developed and coordinated with host nation counterparts to insure continuity of operations. In those areas in which we have firm agreements, very specific procedures for requesting and providing support are carefully laid out beforehand. In areas where pre-war agreements have not been made, CMO personnel assist in negotiating them as early as possible.

ADP SUPPORT

CSS commanders must have adequate information about tactical and combat service support situations to effectively support any operation. This information has become increasingly more available through the use of ADP systems.

ADP is composed of the machinery (hardware), programs (software), specialists, and organizations that operate to process data electronically. ADP enables commanders to know what combat services are required, what resources are available, where they are, and their state of combat readiness. Further, it helps management to stock supplies more selectively and to process requisitions faster.

In combat, computers are subject to the same hazards (direct and indirect fire, air attack, electromagnetic pulse, transient radiation effect on electronics, and electronic countermeasures) as other types of military equipment. To minimize vulnerability, computers should be placed in locations affording maximum cover and concealment. Equally important is the physical security of the computer site. In this regard, plans must include the provision of personnel to provide the required close-in physical security of the computer site.

An ADPC is assigned to the TAACOM headquarters for the purpose of supporting all appropriate CSS functions. It is directed by the automation management officer. The automation management officer operates under the staff supervision of the TAACOM ACofS, personnel. Personnel assigned to the ADPU operate the ADPC and provide service to the various elements of the headquarters.

Users provide guidance to the ADPC on the type and frequency of reports required and instructions and parameters for routine functions and operations. The ADPC can then respond to queries and requests that fall within parameters and instructions provided without involving the functional control center in each action. Basic computer programs used by the ADPC are centrally developed and maintained using standard Army management information systems.

TAACOM MATERIEL MANAGEMENT CENTER

The TAACOM has only one functional control center, the materiel management center. The TAACOM MMC (fig 2-3) uses the automated capabilities of the ADPU (logistics automated system support office when DAS3 is fielded). The MMC functions under

the supervision of the ACofS, materiel. The MMC should be located near TAACOM headquarters to afford close coordination.

TAACOM MMC personnel perform the day-to-day planning for operations. They implement policies and plans of the coordinating staff and develop and apply operating procedures. They make continuing analyses of operations and recommend necessary corrective actions to the appropriate staff element. They also develop portions of plans and programs, develop requirements, and make management decisions pertaining to daily operations.

The TAACOM MMC performs these functions within the parameters of policies, plans, priorities, and allocations that the TAACOM coordinating staff provides. The MMC maintains a close day-to-day relationship with the ADPC. Based on reports and data provided by the ADPC, the MMC exercises routine management of day-to-day activities. Matters of a critical or nonroutine nature and those requiring staff guidance or command decisions are referred to the appropriate TAACOM ACofS. These staff officers, in turn, operate on a management-by-exception basis.

The MMC is the heart of the TAACOM level supply and maintenance management system. It performs integrated supply and maintenance management for all classes of supply for which the TAACOM has control and responsibility. The MMC acts on the requirements of supported forces.

The TAACOM MMC functions in support of the TAACOM materiel management program. It consists of materiel management divisions which are aligned with those of the COSCOM MMC, TAMMC, and the NICP. The center functions under the operational control of the ACofS, materiel, and is commanded by the center commander who also serves as the TAACOM deputy ACofS, materiel management. Each division exercises total day-to-day integrated materiel management of assigned commodities.

The TAACOM MMC is organized with an MMC office, a unit headquarters, a service support division, and seven materiel management divisions. A logistics automated system support office will be added when the DAS3 systems are fielded.

The service support division provides those services of a technical nature, less administration, common to all materiel management divisions. Each division chief is responsible for integrated materiel management of assigned commodities as determined by alignment with CONUS sources of support.

The aviation, electronics, armament and combat vehicle, missile and munitions, and automotive divisions are arranged along functional lines with an attempt to align them as closely as possible with the CONUS-based Army Materiel Development and Readiness Command. The troop support materiel division manages supplies, including subsistence and general and common materiel, under the commodity managership of the Defense Logistics Agency and General Services Administration. The petroleum division manages petroleum products under the commodity managership of the Defense Fuel Supply Center of DLA.

A functional branch breakdown within divisions permits special management of major item supply, maintenance, and repair parts supply. Each peculiar repair parts supply branch of a division has a common repair parts supply expediter, who insures close coordination with the common repair parts supply branch of the troop support materiel division. Individuals from the functional branches can be designated as a management team to combine supply, maintenance, and repair parts expertise for intensive management of a designated critical item.

The MMC is responsible for the following functions:

- Directs storage and distribution of TAACOM-controlled stocks. (It may also perform these functions for TA-controlled stocks when directed.)
- Receives and processes requisitions from supported commands and other designated forces and activities, and either passes requisitions to the CONUS wholesale level or to TAMMC or directs issue from available stocks.
- Reviews and analyzes demands and computations of supported unit requirements for supplies, equipment, and maintenance support.
- Evaluates the work load and capabilities of supply and maintenance units and cross-levels work loads or resources to achieve compatibility and maximum efficiency.
- Coordinates materiel maintenance priorities.
- Collects, sorts, and analyzes TAACOM supply and maintenance data.
- **Provides the ACofS, materiel, and the** logistics readiness officer, TAACOM, information on which to base studies, plans, procedures, directives, policies, estimates, and other command actions.
- Initiates, within policies and directives of the TAACOM headquarters, actions to fulfill supply and maintenance requirements by requisitioning on the TAMMC (and on the NICPs at national level for items in support of ALOC units), local procurement, and redistributing supplies and maintenance assets.
- Approves, within established policies, additions to or deletions from stockage lists and adjustments to requisitioning objectives for TAACOM-controlled stocks.
- **Determines** effects of new or modified supply and maintenance regulations and directives on the TAACOM materiel management system.
- Coordinates, within policies and directives of the TAACOM headquarters, repair of materiel.
- Provides exception data and reports and information on existing or potential problems to the ACofS, materiel, for resolution, guidance, or command decision.
- Provides guidance, through established command and staff channels, to maintenance units and supported commands on maintenance and evacuation priorities, procedures, and standards.
- Directs, in coordination with ACofS materiel, controlled exchange or cannibalization of TAACOM-controlled salvage/unserviceable equipment.

COMMUNICATIONS

THEATER COMMUNICATIONS SYSTEM (ARMY)

The, TCC(A), a subordinate command of the US Army Communications Command, is responsible for providing Army communications at echelons above corps. The TCC(A) installs and operates the theater communications system (Army) which provides the theater army commander the means to command and control the major military elements directly subordinate to him. The TCS(A) interfaces with the TAACOM signal communications system at designated access points and with the Defense Communications System at designated entry points.

The TCS(A) is an integrated command and area nodal communications system emphasizing common-user access and switching. It consists of command links and area links interconnected by signal area nodes, with subscriber links to the area signal nodes. The TCS(A) interfaces with the Defense Communications System at designated access points

and connects with a minimum of two nodes to each corps area system. By using this system, headquarters, units, and installations located throughout the COMMZ have ready access to each other. These area signal nodes are located to facilitate alternate routing and easy access to users.

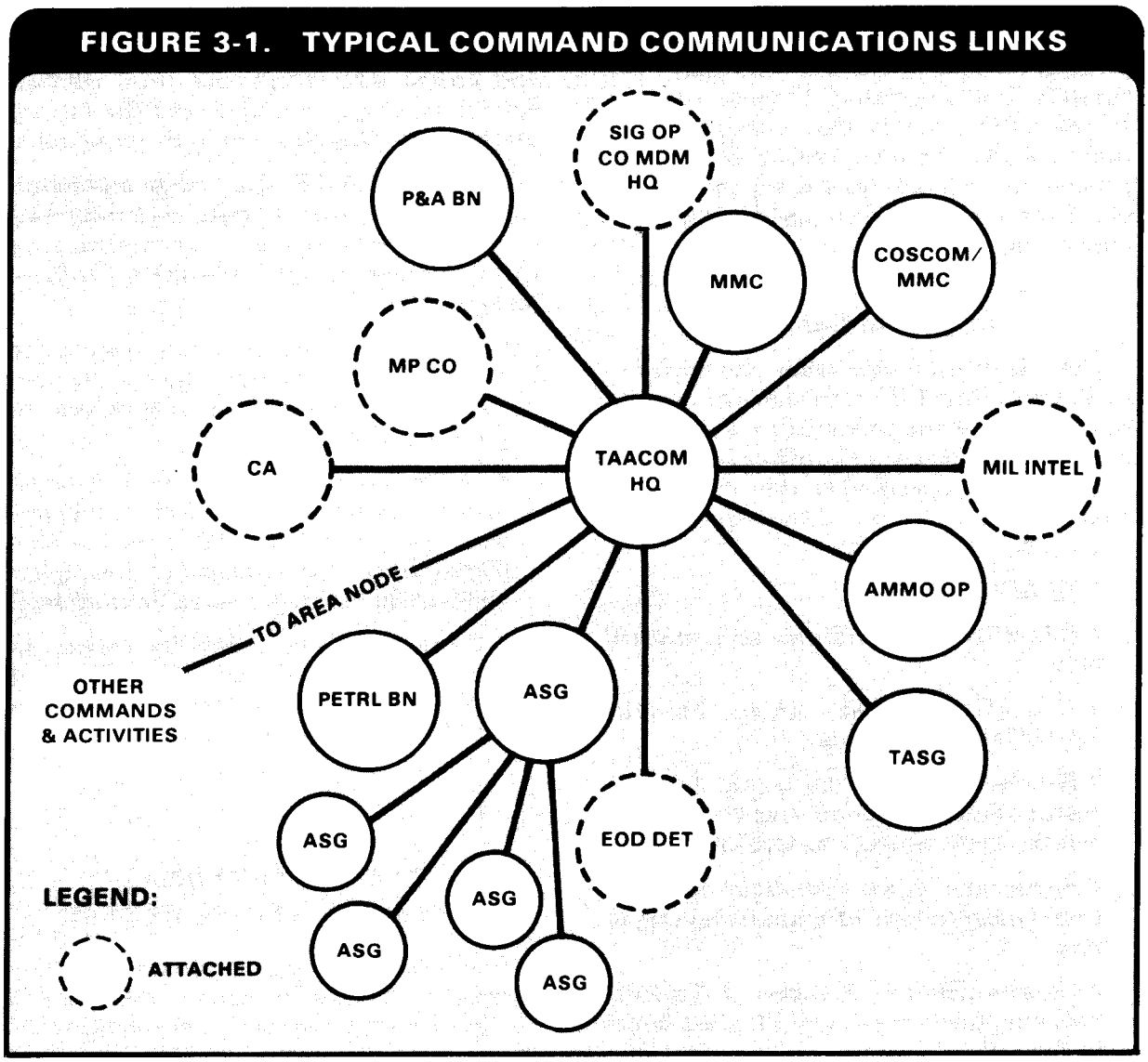
TAACOM COMMUNICATIONS

Communications for the TAACOM are provided through the area systems. Area communications must enable the TAACOM to react quickly and decisively to changes in operational plans and requirements.

TAACOM Command Communications Links

The TAACOM command communications links connect the units of the TAACOM with the headquarters and with other commands and activities. See figure 3-1.

FIGURE 3-1. TYPICAL COMMAND COMMUNICATIONS LINKS



Command Responsibility

The TAACOM commander is responsible for communications operations within the command including—

- Command and control of limited organic C-E facilities.
- Coordinating with the TA signal brigade on matters related to the overall support provided by the brigade.

Staff Responsibilities

Staff responsibilities for TAACOM signal communications operations are charged to the ACofS, SPO, and the C-E officer assigned to the SPO's staff. This responsibility includes the formulation of C-E plans, policies, and procedures and the integration of C-E plans with other tactical and logistical operations.

Staff Coordination

The C-E officer must assume the initiative in determining C-E requirements and in conducting necessary staff coordination on all matters within this officer's area of responsibility. Specifically, this officer must effect coordination on C-E operations by dealing directly with the—

- TAACOM staff.
- C-E officer of subordinate and attached units.
- C-E officer of the units that the TAACOM is supporting.
- Representative of the signal telecommunications battalion commander for detailed communications trunking.
- Supporting signal operations company commander on local communications matters.
- Communications agencies of the local national government and of allied forces in the area.
- Military intelligence group supporting the area.

COMMUNICATIONS-ELECTRONICS PLANNING

Communications and electronics planning encompasses all staff actions that the TAACOM C-E officer takes in preparing for projected operations. The major C-E planning techniques are C-E estimates, plans, and orders. FMs 24-22 and 101-5 contain details on signal planning and the format and content of signal orders and instructions.

The TAACOM C-E officer exercises technical supervision over the assigned or attached communications elements. In discharging this responsibility, the TAACOM C-E officer must consider the—

- Internal communications system for TAACOM headquarters and for the support groups and other units subordinate to the TAACOM.
- Communications links and requirements between the TAACOM headquarters, subordinate TAACOM elements, supported units, and supporting area signal nodes in the area communications system.
- Communications capability organic to the TAACOM units and the linking of these capabilities into a workable TAACOM communications system.

TAACOM INTERNAL COMMUNICATIONS SYSTEM

The TAACOM communications system consists of its organic communications and assigned or attached personnel and facilities. These assets are assigned to the TAACOM

and to the headquarters of the subordinate units, This capability includes the organic communications equipment of the support groups. It also includes those assets of other support units assigned or attached to these groups. A signal operations company is attached to the TAACOM to provide communications for the TAACOM headquarters. Also, a signal section should be assigned to each support group headquarters.

INTEGRATED COMMUNICATIONS SYSTEM

Control of the theater communications system is exercised at theater level. Each TAACOM C-E officer coordinates with the representatives of the higher level C-E staffs, the theater signal officer, and the commanding officer of the supporting signal operations company. This action insures that the service provided by the area signal system is adequate to support the TAACOM. Additional service is usually requested through the commanding officer of the signal operations company. Requirements for service beyond the capability of the signal operations company are referred to the theater army signal officer for necessary action.

The TAACOM C-E officer exercises control of the TAACOM communications system. This control is confined to personnel, equipment, and facilities organic to TAACOM subordinate units. It is also confined to communications units that may be assigned or attached to the TAACOM. Extension link facilities (personnel, equipment, and circuits) provided by the supporting area signal node remain under the operational control of the commanding officer of the node. The C-E officer maintains complete and current signal communications records to provide accurate directory and routing information.

TAACOM Headquarters C-E Staff Personnel

The TOE of the HHC and special troops of the TAACOM authorizes a C-E officer. The C-E officer advises the commander on signal communications and electronic matters. The C-E officer also exercises technical supervision over the installation, operation, and maintenance of the TAACOM signal communications system for future locations of headquarters and command posts.

As a member of the ACofS, SPO, staff section, the C-E officer is included in staff planning actions to present C-E projected operations to the commander and the other members of the staff.

Signal Operations Company, Medium Headquarters

This company is organized as shown in figure 2-14. When at full strength, it provides TAACOM the following:

- Installation, operation, and maintenance of a telephone communications system to include dial central office operations and circuit control and directory service.
- A telecommunications center with record traffic terminals, facsimile terminals, data transmission capabilities, relays, and message center service.
- Motor messenger service within the headquarters and to the subordinate headquarters.

Communications Section, HHC, Support Groups, TAACOM

Each support group HHC should be assigned a signal section, whose mission is to provide internal radio and wire communications service and support to the group. The section consists of a message center, a wire operations team, and a radio team. The communications section has a tactical communications chief to provide supervision of the

activities of the section. This NCO is assisted with advice and guidance by the group staff C-E officer.

The communications section furnishes internal communications for group headquarters only; therefore, a means of entry into the area communications system is needed. This requirement is met from extension facilities available to the supporting area signal node. These extension facilities (links between the area communications system and group headquarters) consist of personnel and radio and/or carrier multiplexing equipment installed, operated, and maintained by the area signal node. Connections are then made between the multiplexing equipment and the group headquarters wirehead,

Message center. The message center accepts and processes messages for transmission and delivery to the addressee. The section provides on-line cryptographic services only. This center is also equipped with terminal teletypewriter and associated security equipment and has personnel for 24-hour-a-day operation. The teletypewriters are used on circuits from the switching and relay center of the supporting area signal node through which messages are routed to and from any teletypewriter stations of the system. FM 24-17 contains details of message center operations.

Wire Operations Team. The wire operations team installs, operates, and maintains a 30-line manual telephone switchboard and installs and maintains the local telephone lines. Long distance telephone service is provided through facilities installed and operated by units of the theater signal brigade.

Radio Team. The radio team operates AM/FM and radio teletypewriter facilities to support the mission of the support groups.